

Monograph number: 00482

Title: Amiodarone

CAS Registry Number: 1951-25-3

CAS Name: (2-Butyl-3-benzofuranyl)[4-[2-(diethylamino)ethoxy]-3,5-diiodophenyl]methanone

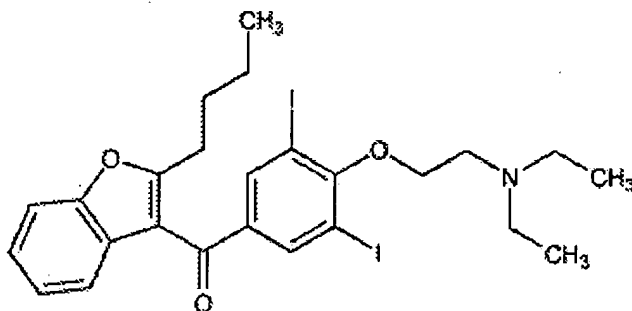
Additional Names: 2-butyl-3-benzofuranyl-4-[2-(diethylamino)ethoxy]-3,5-diiodophenyl ketone ; 2-butyl-3-[3,5-diiodo-4-(β -diethylaminoethoxy)benzoyl]benzofuran

Molecular Formula: $C_{25}H_{29}I_2NO_3$

Molecular Weight: 645.31

Percent Composition: C 46.53%, H 4.53%, I 39.33%, N 2.17%, O 7.44%

Literature References: Benzofuran derivative with multiple electrophysiological effects. Prepn: FR 1339389; R. Tondeur, F. Binon, US 3248401 (1963, 1966 to Soc. Belge l'Azote Prod. Chim. Marly). Physicochemical properties: M. Bonati *et al.*, *J. Pharm. Sci.* **73**, 829 (1984). HPLC determ in plasma: M. De Smet, D. L. Massart, *J. Pharm. Biomed. Anal.* **6**, 277 (1988). Comprehensive description: T. A. Plomp, *Anal. Profiles Drug Subs.* **20**, 1-120 (1991). Review of pharmacology, clinical efficacy and safety: M. Chow, *Ann. Pharmacother.* **30**, 637-643 (1996); B. N. Singh, *Clin. Cardiol.* **20**, 608-618 (1997). Clinical trial in cardiac resuscitation: P. J. Kudenchuk *et al.*, *N. Engl. J. Med.* **341**, 871 (1999); to prevent atrial fibrillation: D. Roy *et al.*, *ibid.* **342**, 913 (2000).



Derivative Type: Hydrochloride

CAS Registry Number: 19774-82-4

Manufacturers' Codes: L-3428

Trademarks: Amiodar (Sanofi Winthrop) ; Ancaron (Taisho); Cordarex (Sanofi Winthrop); Cordarone (Wyeth); Ortacrone (Sanofi Winthrop); Pacerone (Upsher Smith); Tachydaron (Asta); Trangorex (Sanofi Winthrop)

Molecular Formula: $C_{25}H_{29}I_2NO_3 \cdot HCl$

Molecular Weight: 681.77

Percent Composition: C 44.04%, H 4.44%, I 37.23%, N 2.05%, O 7.04%, Cl 5.20%

Properties: Crystalline powder, mp 156°. Also reported as crystals from acetone, mp 159 \pm 2° (Bonati). Soly at 25° (g/100ml): chloroform 44.51; methylene chloride 19.20; methanol 9.98; ethanol 1.28; benzene 0.65; tetrahydrofuran 0.60; acetonitrile 0.32; 1-octanol 0.30; ether 0.17; 1-propanol 0.13; water 0.07; hexane 0.03 petroleum ether 0.001. Sparingly sol in isopropanol; slightly sol in acetone, dioxane, and carbon tetrachloride. pH (5% soln) 3.4-3.9. pK_a (25° C) 6.56 \pm 0.06. uv max (methanol): 208, 242 nm ($E^{1\%}_{1cm}$ 662 \pm 8, 623 \pm 10).

Therapeutic Category: Antiarrhythmic (class III).

.075 milligram per millilitre (mg/mL)

converts to

0.007500000000000 percent (% , wt/vol)

$$0.75 \text{ mg} / 10 \text{ ml} = 0.075 \text{ mg} / \text{ml}$$